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54 **Improvements in adaptors.**

57 A connector backshell adaptor comprises a body portion (20), a rotatable coupling nut (22) at one end, and a fixed part (24) at the other end, separated by means of an annular groove (23). The fixed part (24) comprises two sections (30) and (32) separated by an annular groove (31). In order to secure a cable screen (26), a first adhesive (27) is located in the annular groove (23) and a second adhesive (28) is located between the section (32) and the screen (26), thus providing a substantial longitudinal separation of the two adhesives in order to prevent migration of the first adhesive towards the second adhesive.

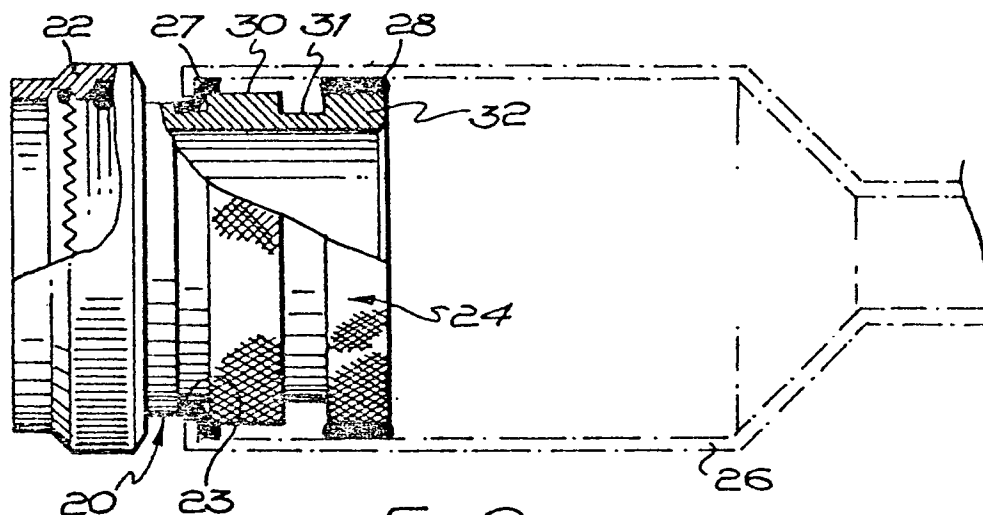


FIG. 2

"IMPROVEMENTS IN ADAPTORS".

The present invention relates to improvements in adaptors and in particular to connector backshell adaptors for use with heat shrinkable metallized parts.

A known construction of a connector backshell adaptor is disclosed in Figure 1 of the accompanying drawing.

As shown in Figure 1, this known construction has a body portion 10, a rotatable coupling nut 12 at one end and a fixed part 14 at the other end separated from the rest of the body portion by an annular groove 13. A cable screen 16 is secured to the fixed part 14 by means of two adhesives 17 and 18. The cable screen 16 is formed of a plastics material whose surfaces are coated with an electrically conductive material. The first adhesive 17 has sealing and mechanical adjustment characteristics. The second adhesive 18 has a conductive adhesive paste, which on shrinkage, gives a mechanical and electrical connection from the cable screen to the body of the connector.

Whilst it is possible to achieve the electrical connection with the construction of the kind described in Figure 1, it has been found that in practice the adhesive 17 becomes very viscous during the shrinking, so that it can migrate into the conductive adhesive paste 18 resulting in a bad electrical connection.

It is therefore an object of the present invention to overcome partially or wholly the above referred to disadvantage of the construction shown in Figure 1.

According to the present invention there is provided a connector backshell adaptor of the kind having a body portion, a rotatable coupling nut at one end and a fixed part at the other end, separated from the rest of the body portion by an annular groove, a cable screen being secured to the fixed part by means of two adhesives, the first adhesive having sealing and mechanical adjustment characteristics, whilst the second adhesive has a conductive adhesive paste which on shrinkage gives a good mechanical and electric connection from the cable screen to the body of the connector, characterized in that the end of the body portion to be sealed to the cable screen has an extended section which is separated from the rest thereof by at least one annular groove.

Preferably, the end of the body portion comprises two sections which are separated by a second annular groove, the first adhesive being positioned in the first annular groove against the first section, whilst the second adhesive is positioned between the second section and the cable screen.

The body portion may be extended by three or

more sections, annular grooves being provided between each such section.

In the preferred construction, the provision of the second annular groove prevents migration of the first adhesive towards the second adhesive and so ensures good electrical connection between the cable screen and the body portion of the connector backshell adaptor.

The present invention will now be described in greater detail by way of example with reference to Figure 2 of the accompanying drawing which is a diagrammatic view of a preferred form of connector backshell adaptor.

Referring to Figure 2, the connector backshell adaptor comprises a body portion 20, a rotatable coupling nut 22 at one end and a fixed part 24 at the other end, separated from the rest of the body portion by means of an annular groove 23. A cable screen 26 is secured to the fixed ring 24 by means of two adhesives 27 and 28. The cable screen 26 is formed of a plastics material whose surfaces are coated with an electrically conductive material to act as a screen against radio frequencies.

In this construction the fixed part 24 has two sections 30 and 32 which are separated by an annular groove 31. The first adhesive 27, which is equivalent to the adhesive 17 in the known construction shown in Figure 1, is still used in the same position in the annular groove 23. The second adhesive 28, which is equivalent to the adhesive 18 is used between the section 32 of the fixed part 24 and the screen 26.

As will be evident from Figure 2 in comparison with the construction shown in Figure 1, there is substantial longitudinal separation of the two adhesives 27 and 28, owing to the extended length of the fixed part 24. Moreover, by virtue of the provision of the annular groove 31, the migration of the first adhesive 27 towards the second adhesive 28 is prevented and consistent results are achieved following shrinking with the metallized moulding. Furthermore, the extended length of the fixed part 24 provides increased mechanical stability to the heat shrinkable moulded component.

Thus, by preventing the first adhesive 27, which as stated above has sealing and mechanical adjustment characteristics, from reaching the second adhesive 28, which as stated above is a conductive adhesive paste, a good electrical connection is ensured between the cable screen 26 and the fixed part 24.

Whilst, in the above example, the fixed part 24 is provided with two sections 30 and 32 which are separated by the annular groove 31, in alternative constructions the fixed part 24 may have three or

more sections separated by two or more annular grooves.

With the above construction we have found that the electrical resistance between the cable screen and the body portion of the connector backshell adaptor is in the range 1.0 to 2.4 milliohms.

Claims

1. A connector backshell adaptor of the kind having a body portion (20), a rotatable coupling nut (22) at one end and a fixed part (24) at the other end, separated from the rest of the body portion by an annular groove (23), a cable screen (26) being secured to the fixed part by means of two adhesives, the first adhesive (27) having sealing and mechanical adjustment characteristics, whilst the second adhesive (28) has a conductive adhesive paste which on shrinkage gives a good mechanical and electrical connection from the cable screen to the body of the connector, characterized in that the end of the body portion 20 to be sealed to the cable screen (26) has an extended section (32) which is separated from the rest thereof by at least one annular groove (31).

2. A connector backshell adaptor according to claim 1, wherein the end of the body portion (20) comprises two sections (30, 32) which are separated by a second annular groove (31), the first adhesive (27) being positioned in the first annular groove against the first section (30), whilst the second adhesive (28) is positioned between the second section (32) and the cable screen (26).

3. A connector backshell adaptor according to claim 1, wherein the body portion (20) is extended by three or more sections, annular grooves being provided between each such section.

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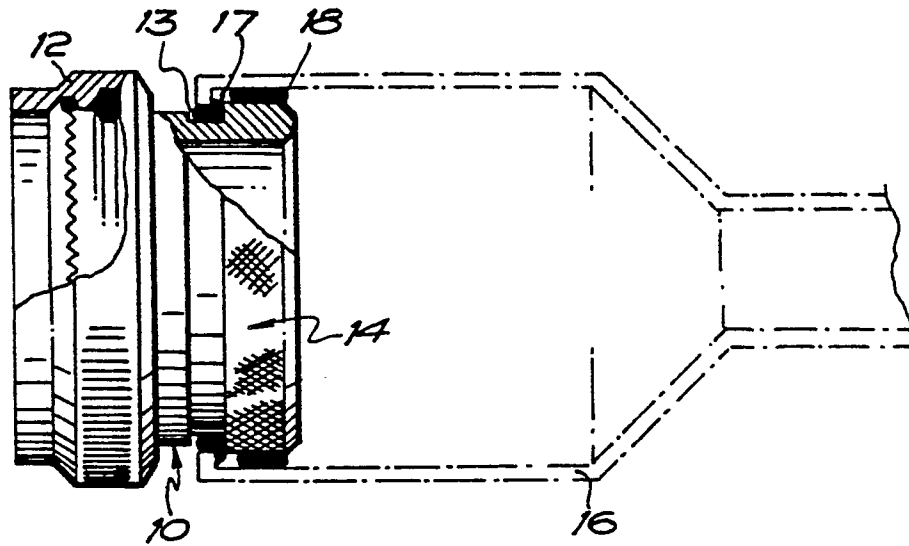


FIG. 1

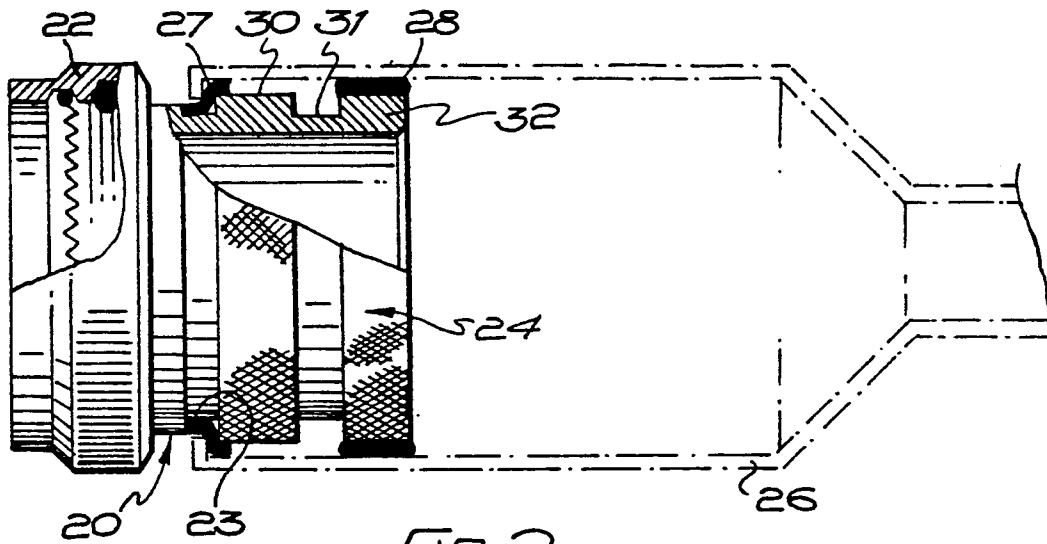


FIG. 2



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	US-A-3 990 765 (HILL) * Column 5, lines 32-55; column 7, lines 40-50; figures 1-3 * ----	1	H 01 R 13/648 H 01 R 4/04
A	DE-A-3 109 250 (BOSCH SIEMENS) * Page 3, paragraphs 1,2,4 * ----	1	
A	US-A-4 026 628 (DUFFNER et al.) * Column 2, lines 25-29; figures 3,4 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			H 01 R 13/00 H 01 R 4/00
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27-11-1987	Examiner TAPPEINER R.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			